

WHAT IS CLAIMED IS:

1. A process of making a polymeric hydrogel comprising maleic anhydride or maleic acid polymer, or copolymer thereof, with an alkylvinylether or olefin, crosslinked with a crosslinking agent having at least 2 crosslinkable groups, where the crosslinkable group is selected from the group consisting of an alcohol (-OH), amine (-NH<sub>2</sub>) or alcohol-amine (-OH) (-NH<sub>2</sub>), and water which comprises forming a reaction mixture of maleic anhydride or maleic acid-polymer or copolymer thereof with an alkyl vinyl ether or olefin, with said crosslinking agent, in a predetermined portion as a paste or slurry with water, and reacting and extruding the paste or slurry at a predetermined temperature to form said polymeric hydrogel.
2. A process according to claim 1 wherein said crosslinking agent is a polyol.
3. A process according to claim 2 wherein said polyol is selected from the group consisting of polyvinyl alcohol, glycerol, glucose, sorbitol, pentaerithritol, nonionic surfactants, alginates, starch, cellulose.
4. A process according to claim 1 wherein said crosslinking agent is a polyamine or ethoxylated amine.
5. A process according to claim 1 wherein said crosslinking agent is an aminoalcohol.
6. A process according to claim 4 wherein said polyamine is an amino acid.

7. A process according to claim 1 wherein the mole ratio of said alcohol (-OH) or amine (-NH<sub>2</sub>) groups in the crosslinking agent to carboxyl groups (-COOH) in the polymer or copolymer is 1:10 to 10:1.

8. A process according to claim 7 wherein said mole ratio of -OH or -NH<sub>2</sub>:COOH is 2:10 to 7:1.

9. A process according to claim 1 wherein water is present in an amount of at least 20% by weight of the hydrogel.

10. A process according to claim 1 in which the crosslinked polymer is an ester or amide/imide, or both.